New Device Event Received

Problem Scenario #1) Device is not in discover engine database.

Probable Cause: The discover engine removed the object from its database prior to when the SAN manager 20 service started processing the new device event. A subsequent "device-missing event" should be forthcoming.

Action: Discard the new device event. Alternatively, see if it is present in the SAN manager 20 service database, and if so, change the state to "suspect".

Problem Scenario #2) Device is already listed in the SAN manager 20 system database and its state is not "missing".

Probable Cause: The databases are out of sync. - missed a device-missing event.

Action: Perform database recovery actions. (See list of possible actions below.)

New Relationship Event Received

Problem Scenario #1) Relationship Object is not in discover engine database.

Probable Cause: The discover engine subsequent to transmitting a notification to the SAN manager 20 service removed the object from its database prior to the SAN manager 20 service processing of the new relationship event. A subsequent "relationship-missing event" should be forthcoming.

Action: Discard the new relationship event. Alternatively, see if it is contained in the SAN manager 20 database, and if so, change the state to "suspect".

Problem Scenario #2) Relationship object is already listed in the SAN manager 20 service database and its state is not "missing".

Probable Cause: The databases are out of sync.

Action: Perform database recovery actions: (See list of possible actions below.)

5

Problem Scenario #3) One of the corresponding devices is not listed in the SAN manager 20 service database.

Probable Cause: (small) timing window.

10 The following example further illustrates how a small timing window can cause such a problem scenario:

at time t1, a device, herein referred to as Dev2, is added to the discover engine database and a new device notification is sent to the SAN manager 20 service,

15 at time t2, a relationship R12 is added to the discover engine database,

at time t3, Dev2 is removed from the discover engine database,

at time t4, the SAN manager 20 service attempts to retrieve Dev2 from the discover engine database as a result of the event at time t1. Dev2 is not present, and the SAN manager 20 service takes no action,

20 at time t5, the SAN manager 20 service receives R12, but it fails to add R12 to its database because Dev2 is not in the SAN manager 20 database.

97

Action: If adding the relationship object fails because the "to or from" object is not there, take no action on this event and assume that a Relationship Missing event will be received.

5   *Modified Attribute Event*

Problem Scenario #1) Device is not contained in the SAN manager 20 service database.

Probable Cause: Missed processing one or more events - the SAN manager 20 database is corrupted.

Action: Perform database recovery actions. (See list of possible actions below.)

10   Problem Scenario #2) Device is contained in the SAN manager 20 service database, but its state is "Missing".

Probable Cause: Missed processing one or more events - the SAN manager 20 service database is corrupted.

15   Action: Perform database recovery actions. (See list of possible actions below.)

Missing Device Event

Problem Scenario #1) Device is not contained in the SAN manager 20 database.

Probable Cause: The device went missing before a New Device Event could be

20   processed.

Action: Discard the event.

Problem Scenario #2) Device is in the SMS DB and its state is "Missing".